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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,172	07/30/2003	Reiner Marchthaler	10191/3122	1408
26646	7590	07/22/2005	EXAMINER	
KENYON & KENYON ONE BROADWAY NEW YORK, NY 10004			LAI, ANNE VIET NGA	
			ART UNIT	PAPER NUMBER
			2636	
DATE MAILED: 07/22/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/632,172

Applicant(s)

MARCHTHALER ET AL.

Examiner

Anne V. Lai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 6-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413).<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)              |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____   |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 6-7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Thompson et al** [US. 2003/0090376] in view of **Pajon** [US. 6,652,000].

In claim 1, **Thompson et al** disclose a system for classifying occupants of a vehicle ([0001], [0052]), comprising at least a sound-wave transmitter and a sound-wave receiver situated in a seat of the vehicle ([0026]-[0027]; figs. 2, 5, 9, 12A); a processor [0052] coupled to the transmitter and receiver for determining the deformation of the seat (due to weight) by measuring amplitude (loading, current), phase and frequency changes of waves (current) transmitted between the transmitter and the receiver [0061]. **Pajon** teaches a system for detecting occupant of a vehicle comprising a processor for measuring propagation values of the transmitted wave to determine the deformation of the seat. It would have been obvious for one having ordinary skill in the art at the time the invention was made the shift in phase of a transmitted wave is a result of change in propagation time of the wave, the teaching of Pajon shows that the wave propagation time can be used to determine the deformation of the seat.

In claims 2 and 3, the transmitter and the receiver of Thompson can be piezoelectric [0027], therefore reversible transmit and receive is inherent (applicant specification page 1, lines 19-21).

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In claims 6-7, Thompson et al disclose two layers of array of electrodes [0063] therefore some transmitters and receivers are situated in horizontal and some in vertical positions with each other.

In claim 8, although Thompson et al do not specify the at least one transmitter is situated in a pressure-free manner, it would have been obvious to one having ordinary skill in the art, people of different sizes seat on an array of transmitters in a seat cushion would cover different areas in size therefore some transmitters would be situated in a pressure-free manner.

3. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Thompson et al** and **Pajon** in view of **Wallace** [6,609,054] and further in view of **Filipov et al** [US. 2003/0122669].

**Thompson et al** and **Pajon** fail to disclose determine the ageing of the receiver. **Wallace** teaches calibrating the detector (sensor) for effect of aging is needed for the vehicle occupant classification system (abstract; col. 38, lines 43-51), and **Filipov et al** teach detecting changes in amplitude (voltage), frequency (current) and phase of the transmitted waveform to determine seat deformation and to determine wave receiver (electrode) fault ([0026], [0028], [0033]-[0038]. It would have been obvious to one having ordinary skill in the art at the time the invention was made the relative aging of the detector (wave receiver) needs to be calculated to bring out an effective measure for obtaining reliable detection result and the method of detecting the fault by aging can be carried out using existing measuring means of system.

### **Conclusion**

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4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: **Cobb et al** and **Gray et al** address concerns on the effect of seat aging to improve the vehicle occupant weight detection system.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**.

See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne V. Lai whose telephone number is 571-272-2974. The examiner can normally be reached on 8:00 am to 5:30 pm, Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hofsass Jeffery can be reached on 571-272-2981. The

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fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*ML*

A. V. Lai  
July 14, 2005

  
JEFFERY HOFSSASS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600